



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Seiji MATSUI et al.
Title: WIRELESS APPARATUS, CHANNEL ALLOCATION METHOD
AND CHANNEL ALLOCATION PROGRAM
Appl. No.: 10/528,340
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Examiner: Chan, Richard
Art Unit: 2681
Confirmation No.: 4638

PRE-APPEAL BRIEF REQUEST FOR REVIEW

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Commissioner for Patents
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Sir:

In accordance with the **Pre-Appeal Brief Conference Pilot Program**, announced July 11, 2005, this Pre-Appeal Brief Request is being filed. A Notice of Appeal is being filed concurrently herewith.

In the final Office Action, dependent claims 17 and 19 are indicated as containing allowable subject matter.

In the final Office Action, claims 11-15 were rejected under 35 U.S.C. § 101, as being directed to non-statutory subject matter, because they do not recite a program stored on a computer readable medium. Based on the amendments made to independent claim 11 in the after-final response so that it now recites a computer readable medium, claims 11-15 are believed to fully comply with 35 U.S.C. § 101.

Although the Advisory Action does not expressly indicate that the rejection under 35 U.S.C. § 101 has been overcome due to the amendments made to claims 11-15 in the after-final response, that is believed to be the case.

In the final Office Action, claims 1-16, 18 and 20 were rejected under 35 U.S.C. §

102(e) as being anticipated by U.S. Patent No. 6,349,217 to Honcharenko et al. This rejection is respectfully traversed for at least the reasons given below.

The present invention relates to a configuration in which when a wireless apparatus supporting adaptive modulation receives a connection request from another wireless apparatus similarly supporting adaptive modulation, irrespective of which modulation method communication is initially being carried out, a threshold value of a communication environment parameter of a transmission path at which communication is possible in the modulation method having a larger multi-value number commonly used by both wireless apparatuses is compared with a parameter measured at that point in time, and the channel allocation of the wireless base station is permitted when it is determined that the measured parameter is larger than the threshold value. That way, degradation of communication quality can be prevented when the modulation method is switched after a connection has been made between wireless apparatuses.

Column 5, lines 45-56 of Honcharenko et al. describes that a modulation scheme is chosen based on the signal-to-noise ratio and the location of a base station to a mobile station. From this description, it appears that Honcharenko et al. describes the basic concept of adaptive modulation. However, Honcharenko et al. fails to disclose, teach or suggest determining whether a communication environment of a transmission path is in a condition in which communication can be carried out without degrading the communication quality when the modulation method is switched to the one having the larger multi-value number, as is possible in the present invention. In other words, the present invention is an advanced scheme of adaptive modulation that is not disclosed, taught or suggested by the simple adaptive modulation scheme described by Honcharenko et al.

In the Continuation sheet to the Advisory Action, it asserts that Applicant's instant application discloses that the multi-value number corresponds to the 16QAM method and QPSK modulation method as disclosed in page 2 of the specification, which corresponds to Honcharenko. The Advisory Action further asserts that column 5, lines 46-56 of Honcharenko discloses that, based on the Signal-to-Noise ratio (SNR) and the location of the base station to the mobile station, a modulation scheme is chosen. The Advisory Action goes on to assert that a high density QAM constellation is implemented when the environment of the system allows for such a modulation scheme, and that if presented with a greater distance and lower SNR situation, the system switches off to a QPSK modulation constellation in

order to maintain reception with the base station. From these assertions, the Advisory Action states that “the Honcharenko reference clearly discloses wherein the QAM and QPSK modulation can be switched based on the SNR detected by the system allowing the system to switch between each modulation scheme.”

In response, Honcharenko’s system does not appear to disclose or suggest a parameter measuring unit that is configured to measure a parameter (indicative of a communication environment of transmission path) based on a signal received from another wireless apparatus. Also, Honcharenko’s system does not appear to disclose or suggest a parameter comparing unit that is configured to compare, when there is a connection request from another wireless apparatus to the wireless apparatus, a stored first threshold value of the parameter corresponding to a second modulation method with the measured parameter. Rather, Honcharenko merely uses a lower-number QPSK modulation scheme when a signal-to-noise ratio is low and a distance between a mobile terminal and a base station is close, and Honcharenko uses a high-number QAM constellation (e.g., 16-ary QAM) when the signal-to-noise ratio is high and a distance between the mobile terminal and the base station is far.

Accordingly, claims 1-16, 18 and 20 are not anticipated by Honcharenko et al.

Still further, with respect to dependent claim 20, that claim recites:

*periodically measuring, by said parameter measuring unit, said parameter indicative of the communication environment of the transmission path, and
switching, when the parameter indicative of the communication environment of the transmission path is greater than the first threshold value, the wireless connection between the wireless apparatus and the another wireless apparatus from the first modulation method to the second modulation method.*

Such periodic measuring of a communication parameter, whereby a modulation method is switched based on whether or not the measured parameter is greater than a first threshold value, is not disclosed or suggested in the simple adaptive modulation system of Honcharenko et al.

Therefore, dependent claim 20 is not anticipated by Honcharenko et al. for these additional reasons, beyond the reasons given above for its base claim 11.

Respectfully submitted,

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